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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,970	11/18/2003	Alex Hornig	HORN3171/EM	4591

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BACON & THOMAS, PLLC  
625 SLATERS LANE  
FOURTH FLOOR  
ALEXANDRIA, VA 22314

EXAMINER
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VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/714,970

Applicant(s)

HORNG ET AL.

Examiner

Christopher Verdier

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 27, 2005 has been entered.

Claims 1-13 are pending, with independent claim 1 currently being amended. Applicants have stated that the specification has been amended to provide antecedent basis for the claimed subject matter. Upon review of the replacement paragraphs for the last full paragraph of page 3 that bridges page 4 and for the first full paragraph on page 6 beginning at line 8, the addition of the term "cool" to describe the air has no antecedent basis in the original specification and claims, and adds new matter to the specification, as set forth later below. Applicants have argued that the amendments to claim 1 overcome the rejections under 35 USC 112, first and second paragraphs, and that no new matter is introduced. This argument is not persuasive, because amended claim 1 contains indefinite claim language and new matter as set forth later below.

With regard to Taiwanese Patent 540,641, Applicants have argued that this reference does not disclose a fan unit spaced apart from an air outlet for allowing cool air to pass through near regions below a hub portion of the fan unit, fails to disclose a sidewall or any air guiding member for confining cool air in the air passageway to pass through near regions below a hub

Art Unit: 3745

portion of a fan unit, and that the top frame 70 cannot confine cool air to pass through below a hub portion of the fan wheel 60. Applicants have also argued that the housing has a base plate and plural ribs 56 arranged at an air outlet of the air passageway, leaving no portion of the air passageway that extends past the hub portion of the fan wheel. These arguments are not persuasive, because the Taiwanese Patent (the figures of pages 8734-8737) discloses a fan unit 60 spaced apart from an air outlet near 56 for allowing cool air to pass through near regions below a hub portion near 62 of the fan unit (see the lower figure on page 8734), with an air guiding member 52 having an unnumbered sidewall for confining cool air in the air passageway to pass through near regions below a hub portion of the fan unit. The air guiding member 52 confines cool air to pass through below a hub portion of the fan wheel 60. With regard to Applicants' arguments that the Taiwanese Patent '641 has plural ribs 56 arranged at an air outlet of the air passageway, leaving no portion of the air passageway that extends past the hub portion of the fan wheel, and does not disclose a first section of the air passageway where a portion of the fan blades and hub are received, and a second unobstructed section of the air passageway below the hub portion and the fan unit, the examiner disagrees. As set forth above, the figure of page 8734 of the Taiwanese Patent '641 discloses a first section of the air passageway where a portion of the fan blades 66 and hub (near 62) are received (the upper section), and an unnumbered lower portion of the air passageway that extends past the hub portion of the fan wheel 60. It would be obvious to a person having ordinary skill in the art to remove the ribs 56 at the outlet, for the purpose of simplifying assembly and reducing the cost and complexity of the fan unit.

With regard to Hong '506 and '700, Applicants have argued that both of these references disclose a base member that is a finned plate which is solid, and therefore lacks an air passageway defined between a first end and a second end of a sidewall, and that neither of these references have an air guiding member including a sidewall and an air passageway defined between a first end and a second end of the sidewall, and that there is no sidewall for confining cool air to pass through below a hub portion of a fan unit. Applicants have further argued that there is no teaching or suggestion to modify the Taiwanese Patent '641 or either Hong '506 or Hong '700 to arrive at the air passageway divided into two sections such that a first section is used to receive a hub portion of the fan unit and a second section functions to expand an air outlet of the air guiding member. These arguments are respectfully disagreed with, because Hong '506 and '700 are only relied upon to teach respective impellers 2, 2 mounted to respective bases 32, 11 of respective cover plates 3, 1. That is, the Taiwanese Patent '641 discloses all of the claimed structure, including a portion of an axial height of the blades being received in the first section of the air passageway of the air guiding member defined between the air inlet and a middle point of the air guiding member and a lower portion of a hub portion of the fan unit received in the first section of the air passageway of the air guiding member so as to reduce an overall thickness of the combination of the fan unit and the air guiding member and a second section of the air passage of the air guiding member defined between the middle point and the air outlet of the air guiding member below the hub portion of the fan unit. The Taiwanese Patent does not disclose that the impeller is mounted to a base of the cover plate, and Hong' 506 and Hong '700 teach this feature.

Applicants' arguments with respect to Ko and Chen are that neither of these references discloses an air guiding member including a sidewall, an air passageway defined between a first end and a second end of the sidewall, and including no other member therebetween. These arguments are not persuasive, because these references were not relied upon to teach these features. Additionally, independent claim 1 has been amended to eliminate the limitation of the air diffusing to the hub, no longer requiring the teachings of Ko or Chen for this subject matter in independent claim 1.

With regard to Applicants' argument that none of the reference applied in the Official Action discloses or suggests an air guiding member including an air passageway dividing into two sections such that the first section receives a hub portion of the fan unit and the second section functions to expand an air outlet of the air guiding member, the examiner disagrees for the reasons set forth above, namely that the Taiwanese Patent '641 discloses this feature. With regard to Applicants' argument that there is no reasonable expectation of success for modifying or changing the top frame 70 or the housing 52 of the Taiwanese Patent '641 to an air guiding member with an air passageway dividing into two sections such that the first section is used to receive a hub portion of the fan unit and the second section is used to expand an air outlet of the air guiding member, and that one of ordinary skill in the art could not possibly, in the absence of hindsight, have conceived of using the combination of a top frame 70 or a housing 52 of the Taiwanese Patent '641 with a board member of Hong '506 or Hong '700 or a housing of Ko or a fan guard of Chen to achieve the presently claimed invention, the examiner disagrees. As set forth above, the Taiwanese Patent '641 discloses substantially all of the claimed structure, except

Art Unit: 3745

for the impeller being mounted to a base of the cover plate, and Hong ' 506 and Hong '700 are relied on to teach this feature. Therefore, there would be a high expectation of success in view of the simple teachings of Hong ' 506 and Hong '700. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The knowledge that an impeller is mounted to a base of a cover plate of a fan unit was within the level of ordinary skill at the time the claimed invention was made, as taught by Hong '506 or Hong '700.

Finally, with regard to Applicants' arguments that both the housing of Ko and the fan guard of Chen are provided with a plurality of ribs arranged in an air outlet, and there is no reasonable expectation of success for modifying the housing to form an air guiding member without any arrangement of ribs in an air outlet, the examiner disagrees. Ko and Chen are no longer relied upon to teach the claimed subject matter of amended claim 1 for the reasons set forth above. It would be obvious to a person having ordinary skill in the art to remove the ribs 56 at the outlet of the Taiwanese Patent '641, for the purpose of simplifying assembly and reducing the cost and complexity of the fan unit, and thus there would be a high expectation of success in light of this modification.

***Specification***

The amendment filed October 27, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

In the replacement paragraph for the last full paragraph of page 3 that bridges page 4, at line 13, the addition of the term "cool" to describe the air has no antecedent basis in the original specification and claims and is new matter.

In the replacement paragraph for the first full paragraph on page 6 beginning at line 8, at line 9, the addition of the term "cool" to describe the air has no antecedent basis in the original specification and claims and is new matter.

Applicant is required to cancel the new matter in the reply to this Office Action.

The disclosure is objected to because of the following informalities: Appropriate correction is required.

In the replacement paragraph for the last full paragraph of page 3 that bridges page 4, at line 14, "o" should be changed to -- of --.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:



Art Unit: 3745

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, line 6 has been amended to recite “and including no other member therebetween”. As far as this amended limitation is understood to refer to the air guiding member and/or the first and second ends of the sidewall, it is new matter, because as seen in figure 3, for example, there are ribs 13 located in the air passageway of the air guiding member between the first end and the second end of the sidewall, and as seen in figure 3, for example, the impeller 20 located in the air passageway of the air guiding member between the first end and the second end of the sidewall. Both of these elements may be considered to be a “member therebetween”. Additionally, there is no antecedent basis in the original disclosure for the negative limitation “and including no other member therebetween”. Any negative limitation or exclusionary proviso must have basis in the original disclosure. See MPEP 2173.05(i). In claim 1, limitation of the air being “cool” is new matter, because there is no antecedent basis in the original specification or claims for this limitation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3745

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, line 6 has been amended to recite “and including no other member therebetween”. This phrase is unclear as to which element “and including no other member therebetween” refers to. As far as this amended limitation is understood, it is inaccurate, because as seen in figure 3, for example, there are ribs 13 located in the air passageway of the air guiding member between the first end and the second end of the sidewall, and as seen in figure 3, for example, the impeller 20 located in the air passageway of the air guiding member between the first end and the second end of the sidewall. Both of these elements may be considered to be a “member therebetween”. In claim 1, line 22, “to pass through” is unclear as to which element “to pass through” refers to.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 3745

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 5, 9, and 11-12, as far as they are definite and understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 in view of Hong 5,582,506. The Taiwanese Patent (the figures of pages 8734-8737) discloses a heat dissipating fan substantially as claimed, including a cover plate 70 with an air inlet 54, an impeller 60 including plural blades 66, an air guiding member 52 including an unnumbered sidewall, with an unnumbered air passageway defined between a first end and a second end of the sidewall, with the first end of the air guiding member connected to the cover plate in a stacked manner, and the air guiding member further including an air outlet near 56 proximate to the second end of the air guiding member beyond the impeller such that the air outlet can be expanded, a portion of an axial height of a blade being received in a first top section of the air passageway defined between the air inlet and a middle point of the air guiding member and a lower portion of a hub portion (near 62 in the figure on page 8734) of the impeller received in the first section of the air passageway so as to reduce an overall thickness of the impeller and the air guiding member, and a second bottom section of the air passageway defined between the middle point and the air outlet below the hub portion of the fan unit, plural auxiliary side inlets (74, and the inlets defined between elements 72) defined between the cover plate and the air guiding member, with air intake occurring at the same time in the air inlet and in the auxiliary side inlets when the impeller turns, the sidewall confining cool air in the second section of the air passageway to pass through near regions below the hub portion of the impeller and then to exit the expanded air outlet in a

Art Unit: 3745

predetermined direction, with the cover plate including a first engaging portion (posts 72) and the air guiding member including an unnumbered second engaging portion (below posts 72) engaged with the first engaging portion, with the cover plate including plural posts (rectangular posts 72) projecting downward from a peripheral portion of an underside of the cover plate, thus reducing the possibility of entrance of alien objects and improving structural strength of the impeller.

However, the Taiwanese Patent does not disclose that the impeller is mounted to a base of the cover plate, with the impeller being mounted to an upper side of the base of the cover plate, with plural ribs connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow. Rather, the impeller is mounted to the air guiding member. Additionally, the Taiwanese Patent does not disclose that there is no other member between a first end and a second end of the sidewall, rather ribs 56 are located between a first end and a second end of the sidewall.

Hong '506 (figures 1-3) shows a heat dissipating fan having an impeller 2 mounted to a base 32 of a cover plate 3, with the impeller being mounted to an upper side of the base of the cover plate, with plural ribs 31 connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow, for the purpose of securely mounting the impeller to the cover plate, and allowing a large amount of cooling air to be induced.

Art Unit: 3745

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan of Taiwanese Patent 540,641 such that the impeller is mounted to a base of the cover plate, with the impeller being mounted to an upper side of the base of the cover plate, with plural ribs connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow, as taught by Hong '506, for the purpose of securely mounting the impeller to the cover plate, and allowing a large amount of cooling air to be induced. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to remove the ribs 56 from the fan of Taiwanese Patent 540,641 for the purpose of simplifying assembly and reducing the cost and complexity of the fan unit.

Claims 1-2, 6, 9, and 11-12, as far as they are definite and understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 in view of Hong 5,552,700. The Taiwanese Patent (the figures of pages 8734-8737) a heat dissipating fan substantially as claimed, including a cover plate 70 with an air inlet 54, an impeller 60 including plural blades 66, an air guiding member 52 including an unnumbered sidewall, with an unnumbered air passageway defined between a first end and a second end of the sidewall, with the first end of the air guiding member connected to the cover plate in a stacked manner, and the air guiding member further including an air outlet near 56 proximate to the second end of the air guiding member beyond the impeller such that the air outlet can be expanded, a portion of an axial height of a blade being received in a first top section of the air passageway defined between the air inlet and a middle point of the air guiding member and a lower portion of a hub portion (near 62 in the figure on page 8734) of the impeller received in the first section of the air

Art Unit: 3745

passageway so as to reduce an overall thickness of the impeller and the air guiding member, and a second bottom section of the air passageway defined between the middle point and the air outlet below the hub portion of the fan unit, plural auxiliary side inlets (74, and the inlets defined between elements 72) defined between the cover plate and the air guiding member, with air intake occurring at the same time in the air inlet and in the auxiliary side inlets when the impeller turns, the sidewall confining cool air in the second section of the air passageway to pass through near regions below the hub portion of the impeller and then to exit the expanded air outlet in a predetermined direction, with the cover plate including a first engaging portion (posts 72) and the air guiding member including an unnumbered second engaging portion (below posts 72) engaged with the first engaging portion, with the cover plate including plural posts (rectangular posts 72) projecting downward from a peripheral portion of an underside of the cover plate, thus reducing the possibility of entrance of alien objects and improving structural strength of the impeller.

However, the Taiwanese Patent does not disclose that the impeller is mounted to a base of the cover plate, with the impeller being mounted to an underside of the base of the cover plate, with plural ribs connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow. Rather, the impeller is mounted to the air guiding member. Additionally, the Taiwanese Patent does not disclose that there is no other member between a first end and a second end of the sidewall, rather ribs 56 are located between a first end and a second end of the sidewall.

Art Unit: 3745

Hong '700 (figures 1-3) shows a heat dissipating fan having an impeller 2 mounted to a base 11 of a cover plate 1, with the impeller being mounted to an underside of the base of the cover plate, with plural ribs 101 connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow, for the purpose of securely mounting the impeller to the cover plate.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the fan of Taiwanese Patent 540,641 such that the impeller is mounted to a base of the cover plate, with the impeller being mounted to an underside of the base of the cover plate, with plural ribs connected between the cover plate and the base, with the ribs forming plural stationary blades for guiding airflow, as taught by Hong '700, for the purpose of securely mounting the impeller to the cover plate, and allowing a large amount of cooling air to be induced. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to remove the ribs 56 from the fan of Taiwanese Patent 540,641 for the purpose of simplifying assembly and reducing the cost and complexity of the fan unit.

Claim 3, as far as it is definite and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 and Hong 5,582,506 as applied to claim 2 above, and further in view of Katsui 5,559,674. The modified fan of the Taiwanese Patent shows all of the claimed subject matter except for the first engaging portion including plural through holes and the second engaging member including plural posts each having a screw hole aligned with the respective through hole.

Katsui (figure 2) shows a heat dissipating fan having a cover plate 84 with a first engaging portion including unnumbered through holes (filled by screws 92) and an air guiding member 82 having plural posts 85A, 85B, 85C, 85D each having an unnumbered screw hole aligned with the respective through hole, for the purpose of allowing the cover plate to be securely fastened to the air guiding member.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan of Taiwanese Patent 540,641 such that the first engaging portion includes plural through holes and the second engaging member includes plural posts each having a screw hole aligned with the respective through hole, as taught by Katsui, for the purpose of allowing the cover plate to be securely fastened to the air guiding member.

Claim 4, as far as it is definite and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 and Hong 5,582,506 as applied to claim 2 above, and further in view of Gan 6,817,939. The modified fan of the Taiwanese Patent shows all of the claimed subject matter except for the second engaging portion including plural through holes and the first engaging member including plural posts each having a screw hole aligned with the respective through hole.

Gan shows a heat dissipating fan having a cover plate 40 (element 40 is broadly considered to be a cover plate) and an air guiding member 30, with the cover plate including a



Art Unit: 3745

first engaging portion (near 42) and the air guiding member including a second engaging portion 312, with the second engaging portion including plural through holes 312 and the first engaging member including plural posts (near 42) each having a screw hole 42 aligned with the respective through hole 312, for the purpose of allowing the cover plate to be securely fastened to the air guiding member.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan of Taiwanese Patent 540,641 such that the second engaging portion includes plural through holes and the first engaging member includes plural posts each having a screw hole aligned with the respective through hole, as taught by Gan, for the purpose of allowing the cover plate to be securely fastened to the air guiding member.

Claims 7-8, as far as they are definite and understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 and Hong 5,582,506 as applied to claim 1 above, and further in view of either (Ko 2004/0201961 or Chen 6,524,674). The modified fan of the Taiwanese Patent shows all of the claimed subject matter except for a sectional area of an air outlet side of the air passageway being smaller than that of an air inlet side of the air passageway, and except for the air passageway extending in a direction at an angle with an airflow direction, guiding the airflow to the predetermined direction.

Ko (figures 3A-3B) shows a fan having an unnumbered air guiding member formed such that the sectional area of an air outlet side of an air passageway of the air guiding member is

Art Unit: 3745

smaller than that of an air inlet side of the air passageway, with the air passageway extending in a direction at an angle with an airflow direction, guiding the airflow to a predetermined direction, for the purpose of allowing concentrated air streams to provide better heat dissipating performance.

Chen (figures 2a-2b) shows a fan 22 having an air guiding member 21 formed at 213 such that the sectional area of an air outlet side 212 of an air passageway of the air guiding member is smaller than that of an air inlet side of the air passageway, with the air passageway extending in a direction at an angle with an airflow direction, guiding the airflow to a predetermined direction, for the purpose of concentrating airflow toward a central area, thus improving heat dissipation.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan of Taiwanese Patent 540,641 such that a sectional area of an air outlet side of the air passageway is smaller than that of an air inlet side of the air passageway, with the air passageway extending in a direction at an angle with an airflow direction, guiding the airflow to the predetermined direction, as taught by Ko, for the purpose of allowing concentrated air streams to provide better heat dissipating performance, or as taught by Chen, for the purpose of concentrating airflow toward a central area, thus improving heat dissipation.

Art Unit: 3745

Claim 10, as far as it is definite and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 in view of Hong 5,582,506. The Taiwanese Patent (the figures of pages 8734-8737) discloses a heat dissipating fan substantially as claimed as set forth above, with the cover plate 70 including plural posts (rectangular posts 72) projecting downward from a peripheral portion of an underside of the cover plate, thus reducing the possibility of entrance of alien objects and improving structural strength of the impeller.

However, the Taiwanese Patent does not show that the air guiding member 52 includes the rectangular posts 72, such that the posts project upward from a peripheral portion of an upper side of the air guiding member.

It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan of the Taiwanese Patent such that the air guiding member 52 includes the rectangular posts 72, such that the posts project upward from a peripheral portion of an upper side of the air guiding member, since it has been held that mere reversal of parts is an obvious engineering expedient. *In re Gazda*, 219 F.2d 449, 104 USPQ 400 (CCPA 1955).

Claim 13, as far as it is definite and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Taiwanese Patent 540,641 and Hong 5,582,506 as applied to claim 12 above, and further in view of Bendikas 6,457,949. The modified fan of the Taiwanese Patent

Art Unit: 3745

shows all of the claimed subject matter, including stationary blades, but does not show the stationary blades including an inclining angle opposite to that of the blades.

Bendikas (figure 1) shows a heat dissipating fan near 10 having unnumbered stationary blades that have an inclining angle that is opposite to that of blades of fans 40, 41, 42, for example, for the purpose of smoothly guiding airflow at the fans.


It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified fan of the Taiwanese Patent such that the stationary blades include an inclining angle opposite to that of the blades, as taught by Bendikas, for the purpose of smoothly guiding airflow at the fan.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.  
November 4, 2005

  
Christopher Verdier  
Primary Examiner  
Art Unit 3745